

Jin-yang Jiang

List of Publications by Year in descending order

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77
papers

1,965
citations

201674

27
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276875

41
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docs citations

78
times ranked

1452
citing authors

#	ARTICLE	IF	CITATIONS
1	A Novel Heterostructure Based on RuMo Nanoalloys and N-doped Carbon as an Efficient Electrocatalyst for the Hydrogen Evolution Reaction. <i>Advanced Materials</i> , 2020, 32, e2005433.	21.0	151
2	Chloride ions transport and adsorption in the nano-pores of silicate calcium hydrate: Experimental and molecular dynamics studies. <i>Construction and Building Materials</i> , 2016, 126, 991-1001.	7.2	108
3	Influence of chloride concentration and pre-passivation on the pitting corrosion resistance of low-alloy reinforcing steel in simulated concrete pore solution. <i>Construction and Building Materials</i> , 2016, 111, 805-813.	7.2	105
4	Experimental and molecular dynamics studies on the transport and adsorption of chloride ions in the nano-pores of calcium silicate phase: The influence of calcium to silicate ratios. <i>Microporous and Mesoporous Materials</i> , 2018, 255, 23-35.	4.4	105
5	Effects of graphene sulfonate nanosheets on mechanical and thermal properties of sacrificial concrete during high temperature exposure. <i>Cement and Concrete Composites</i> , 2017, 82, 252-264.	10.7	60
6	Corrosion behavior and mechanism of Cr-Mo alloyed steel: Role of ferrite/bainite duplex microstructure. <i>Journal of Alloys and Compounds</i> , 2019, 809, 151787.	5.5	60
7	Quasi-static and dynamic mechanical properties of eco-friendly ultra-high-performance concrete containing aeolian sand. <i>Cement and Concrete Composites</i> , 2019, 97, 369-378.	10.7	58
8	Environmentally-friendly superhydrophobic surface based on Al ₂ O ₃ @KH560@SiO ₂ electrokinetic nanoparticle for long-term anti-corrosion in sea water. <i>Applied Surface Science</i> , 2019, 484, 307-316.	6.1	57
9	Improving the chloride binding capacity of cement paste by adding nano-Al ₂ O ₃ . <i>Construction and Building Materials</i> , 2019, 195, 415-422.	7.2	56
10	Insights into the interfacial strengthening mechanisms of calcium-silicate-hydrate/polymer nanocomposites. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 8247-8266.	2.8	53
11	Improving the chloride binding capacity of cement paste by adding nano-Al ₂ O ₃ : The cases of blended cement pastes. <i>Construction and Building Materials</i> , 2020, 232, 117219.	7.2	52
12	Thermal conductivity and elastic modulus of 3D porous/fractured media considering percolation. <i>International Journal of Engineering Science</i> , 2021, 161, 103456.	5.0	48
13	The mechanism of cesium ions immobilization in the nanometer channel of calcium silicate hydrate: a molecular dynamics study. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 27974-27986.	2.8	45
14	Feasibility of manufacturing ultra-high performance cement-based composites (UHPCCs) with recycled sand: A preliminary study. <i>Waste Management</i> , 2019, 83, 104-112.	7.4	43
15	Molecular dynamics study on the weakening effect of moisture content on graphene oxide reinforced cement composite. <i>Chemical Physics Letters</i> , 2018, 708, 177-182.	2.6	41
16	Passivation Characteristics of Alloy Corrosion-Resistant Steel Cr10Mo1 in Simulating Concrete Pore Solutions: Combination Effects of pH and Chloride. <i>Materials</i> , 2016, 9, 749.	2.9	39
17	Molecular dynamics study of solvated aniline and ethylene glycol monomers confined in calcium silicate nanochannels: a case study of tobermorite. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 15145-15159.	2.8	37
18	Calcite crystallization in the cement system: morphological diversity, growth mechanism and shape evolution. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 14174-14181.	2.8	36

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19	Consistent preparation, chemical stability and thermal properties of a shape-stabilized porous carbon/paraffin phase change materials. <i>Journal of Cleaner Production</i> , 2020, 247, 119565.	9.3	35
20	The Passive Film Growth Mechanism of New Corrosion-Resistant Steel Rebar in Simulated Concrete Pore Solution: Nanometer Structure and Electrochemical Study. <i>Materials</i> , 2017, 10, 412.	2.9	34
21	Mechanical and physicochemical properties of ferro-siliceous concrete subjected to elevated temperatures. <i>Construction and Building Materials</i> , 2016, 122, 743-752.	7.2	33
22	Mechanical and thermal properties of graphene sulfonate nanosheet reinforced sacrificial concrete at elevated temperatures. <i>Construction and Building Materials</i> , 2017, 153, 682-694.	7.2	33
23	Design of a novel nanocomposite with C-S-H@LA for thermal energy storage: A theoretical and experimental study. <i>Applied Energy</i> , 2018, 220, 395-407.	10.1	31
24	Modification of incorporation and in-situ polymerization of aniline on the nano-structure and meso-structure of calcium silicate hydrates. <i>Construction and Building Materials</i> , 2018, 182, 459-468.	7.2	31
25	Hydration process and microstructure evolution of low exothermic concrete produced with urea. <i>Construction and Building Materials</i> , 2020, 248, 118640.	7.2	29
26	Aluminum-Induced Interfacial Strengthening in Calcium Silicate Hydrates: Structure, Bonding, and Mechanical Properties. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 2622-2631.	6.7	28
27	In situ TEM observation of calcium silicate hydrate nanostructure at high temperatures. <i>Cement and Concrete Research</i> , 2021, 149, 106579.	11.0	28
28	Assessing the Adsorption and Diffusion Behavior of Multicomponent Ions in Saturated Calcium Silicate Hydrate Gel Pores Using Molecular Dynamics. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 3718-3727.	6.7	28
29	Molecule adsorption and corrosion mechanism of steel under protection of inhibitor in a simulated concrete solution with 3.5% NaCl. <i>RSC Advances</i> , 2018, 8, 20648-20654.	3.6	27
30	The influence of sodium sulfate and magnesium sulfate on the stability of bound chlorides in cement paste. <i>Construction and Building Materials</i> , 2019, 228, 116775.	7.2	27
31	Reactive molecular simulation on the calcium silicate hydrates/polyethylene glycol composites. <i>Chemical Physics Letters</i> , 2017, 687, 184-187.	2.6	26
32	Thermal behavior of siliceous and ferro-siliceous sacrificial concrete subjected to elevated temperatures. <i>Materials and Design</i> , 2016, 95, 470-480.	7.0	25
33	High output power density nanogenerator based on lead-free $0.96(\text{K}_{0.48}\text{Na}_{0.52})(\text{Nb}_{0.95}\text{Sb}_{0.05})\text{O}_{3}\text{@}0.04\text{Bi}_{0.5}\text{Zr}_{0.5}\text{O}_{3}$ piezoelectric nanofibers. <i>RSC Advances</i> , 2016, 6, 66451-66456.	3.6	25
34	New Insights into the Role of Portlandite in the Cement System: Elastic Anisotropy, Thermal Stability, and Structural Compatibility with C-S-H. <i>Crystal Growth and Design</i> , 2020, 20, 2477-2488.	3.0	21
35	Pitting Corrosion Behaviour of New Corrosion-Resistant Reinforcement Bars in Chloride-Containing Concrete Pore Solution. <i>Materials</i> , 2017, 10, 903.	2.9	19
36	Nondestructive experimental characterization and numerical simulation on self-healing and chloride ion transport in cracked ultra-high performance concrete. <i>Construction and Building Materials</i> , 2019, 198, 696-709.	7.2	19

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37	Design of Eco-friendly Ultra-high Performance Concrete with Supplementary Cementitious Materials and Coarse Aggregate. Journal Wuhan University of Technology, Materials Science Edition, 2019, 34, 1350-1359.	1.0	19
38	Effect of temperature on the capillary transport of sodium sulfate solution in calcium silicate hydrate nanopore: A molecular dynamics study. Construction and Building Materials, 2020, 231, 117111.	7.2	19
39	THE MULTIFRACTAL PROPERTY OF HETEROGENEOUS MICROSTRUCTURE IN CEMENT PASTE. Fractals, 2021, 29, 2140006.	3.7	19
40	An investigation on the formation of Friedelâ€™s salt in tricalcium silicate combined with metakaolin and limestone systems. Construction and Building Materials, 2021, 284, 122855.	7.2	18
41	Mechanical properties and ablation behaviour of nuclear sacrificial materials containing graphene sulfonate nanosheets. Construction and Building Materials, 2018, 191, 69-79.	7.2	16
42	Insight into ions adsorption at the C-S-H gel-aqueous electrolyte interface: From atomic-scale mechanism to macroscopic phenomena. Construction and Building Materials, 2022, 321, 126179.	7.2	12
43	Microstructure Characteristic and Electrochemical Corrosion Behavior of Surface Nano-crystallization Modified Carbon Steel. Journal of Iron and Steel Research International, 2016, 23, 1281-1289.	2.8	11
44	Corrosion Behavior of Cr Micro-alloyed Corrosion-resistant Rebar in Neutral Clâ€™-containing Environment. Journal of Iron and Steel Research International, 2016, 23, 608-617.	2.8	11
45	Nanoengineering Microstructure of Hybrid Câ€™Sâ€™H/Silicene Gel. ACS Applied Materials & Interfaces, 2020, 12, 17806-17814.	8.0	11
46	Experiment and simulation of chloride ion transport and binding in concrete under the coupling of diffusion and convection. Journal of Building Engineering, 2022, 45, 103610.	3.4	11
47	Chloride ion transport performance in slag mortar under fatigue loading. Science China Technological Sciences, 2012, 55, 1359-1364.	4.0	10
48	Interactive Effect of Mechanical Fatigue Load and the Fatigue Effect of Freeze-Thaw on Combined Damage of Concrete. Journal of Materials in Civil Engineering, 2015, 27, .	2.9	10
49	Observation of Surface Ligands-Controlled Etching of Palladium Nanocrystals. Nano Letters, 2021, 21, 6640-6647.	9.1	10
50	Dynamic compression mechanical properties of eco-friendly ultra-high performance concrete produced with aeolian sand: Experimental and three-dimensional mesoscopic investigation. International Journal of Impact Engineering, 2022, 164, 104192.	5.0	10
51	Calcium silicate hydrate colloid at different humidities: Microstructure, deformation mechanism, and mechanical properties. Acta Materialia, 2022, 228, 117740.	7.9	9
52	Effect of chromium micro-alloying on the corrosion behavior of a low-carbon steel rebar in simulated concrete pore solutions. Journal Wuhan University of Technology, Materials Science Edition, 2017, 32, 1453-1463.	1.0	8
53	Workability, hydration, microstructure, and mechanical properties of UHPC produced with aeolian sand. Journal of Sustainable Cement-Based Materials, 2022, 11, 57-73.	3.1	8
54	Hydraulic transport properties of unsaturated cementitious composites with spheroidal aggregates. International Journal of Mechanical Sciences, 2021, 212, 106845.	6.7	8

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55	Mechanical properties and antifreeze performance of cement-based composites with liquid paraffin/diatomite capsule low-temperature phase change. <i>Construction and Building Materials</i> , 2022, 341, 127773.	7.2	8
56	Chloride ion transport in fly ash mortar under action of fatigue loading. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2012, 27, 1165-1171.	1.0	7
57	Galvanic corrosion of duplex corrosion-resistant steel rebars under carbonated concrete conditions. <i>RSC Advances</i> , 2018, 8, 16626-16635.	3.6	7
58	Effect of Inhibitor on Adsorption Behavior and Mechanism of Micro-Zone Corrosion on Carbon Steel. <i>Materials</i> , 2019, 12, 1901.	2.9	7
59	Multiple ions transport and interaction in calcium silicate hydrate gel nanopores: Effects of saturation and tortuosity. <i>Construction and Building Materials</i> , 2021, 283, 122638.	7.2	7
60	Assessment of Structural Feature and Ionic Diffusivity of ITZ in Blended Cementitious Composites. <i>Journal of Advanced Concrete Technology</i> , 2016, 14, 344-353.	1.8	6
61	Surface Modification of Rusted Rebar and Enhanced Passivation/Anticorrosion Performance in Simulated Concrete Pore Solutions with Different Alkalinity. <i>Metals</i> , 2019, 9, 1050.	2.3	6
62	The manner and extent to which the hydration shell impacts interactions between hydrated species. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 20496-20508.	2.8	6
63	Fractal Modeling of Pore Structure and Ionic Diffusivity for Cement Paste. <i>Advances in Materials Science and Engineering</i> , 2016, 2016, 1-8.	1.8	5
64	Modeling of Ionic Diffusivity for Cement Paste with Solid Mass Fractal Model and Lattice Boltzmann Method. <i>Journal of Materials in Civil Engineering</i> , 2017, 29, .	2.9	5
65	Formation and Structure of Inhibitive Molecular Film of Oxadiazole on Iron Surface. <i>Journal of Physical Chemistry C</i> , 2017, 121, 21420-21429.	3.1	5
66	Coupling Mechanism of Saturated Concrete Subjected to Simultaneous Fatigue Loading and Freeze-thaw Cycles. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2018, 33, 1121-1128.	1.0	5
67	Cracking resistance performance of super vertical-distance pumped SFRC. <i>Frontiers of Architecture and Civil Engineering in China</i> , 2008, 2, 179-183.	0.4	4
68	Multi-scale modeling of the ionic diffusivity of cement-based materials. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2016, 31, 123-130.	1.0	4
69	Quantitative calculation of hydration products for binary slag-Portland cement system. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2014, 29, 972-979.	1.0	3
70	Feasibility of producing cement-based sacrificial materials with strontium ferrite: A preliminary study. <i>Construction and Building Materials</i> , 2022, 318, 125967.	7.2	3
71	Simulation of the cracking and ablation behavior of ferro-siliceous and siliceous nuclear sacrificial concretes. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2016, 31, 982-988.	1.0	2
72	The interactions of molten core with different types of concretes in EPR severe accident. <i>Journal of Sustainable Cement-Based Materials</i> , 2015, 4, 44-53.	3.1	1

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73	Influence of Concrete Properties on Molten Core-Concrete Interaction: A Simulation Study. <i>Advances in Materials Science and Engineering</i> , 2016, 2016, 1-10.	1.8	1
74	Effect of citric acid-modified chitosan on the hydration and microstructure of Portland cement paste. <i>Journal of Sustainable Cement-Based Materials</i> , 2023, 12, 83-96.	3.1	1
75	Uniaxial tensile constitutive model of fiber reinforced concrete considering bridging effect and its numerical algorithm. <i>Journal of Sustainable Cement-Based Materials</i> , 2023, 12, 207-217.	3.1	1
76	Elastic Properties and Deformation Mechanisms in the van der Waals Single-Crystalline Indium Selenide. <i>Physica Status Solidi - Rapid Research Letters</i> , 2022, 16, 2100418.	2.4	1
77	An analytical method to detect the coupling damage relationship of concrete subjected to bending fatigue and temperature actions. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2011, 26, 573-577.	1.0	0